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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,429	04/23/2002	Jonathan C. Boomgaarden	gems0187/yod	4971

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EXAMINER

HO, ALLEN C

ART UNIT PAPER NUMBER

2882

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/063,429	BOOMGAARDEN ET AL.	
	Examiner	Art Unit	
	Allen C. Ho	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-24, 26, 28-39, 41-44, 50 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5-11, 21-24, 26 and 28-38 is/are allowed.
- 6) ☒ Claim(s) 12, 13, 17-20, 39, 41, 50 and 51 is/are rejected.
- 7) ☒ Claim(s) 14-16 and 42-44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12, 13, 17, 19, 20, 39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Van der Ende (U. S. Patent No. 5,822,814).

With regard to claim 12, Van der Ende disclosed a patient support for an imaging system, comprising: a curvilinear rail structure (4) attachable to, and movable with, a radiographic receptor (12) of the imaging system; and a limb support (8) slidably coupled to the curvilinear rail structure.

With regard to claim 13, Van der Ende disclosed the patient support of claim 12, wherein the curvilinear rail structure has a convex path.

With regard to claim 17, Van der Ende disclosed the patient support of claim 12, wherein the limb support is adapted to position a patient limb in a non-obstructive location relative to the radiographic receptor.

Art Unit: 2882

With regard to claim 19, Van der Ende disclosed the patient support of claim 12, wherein the limb support comprises a wrist support.

With regard to claim 20, Van der Ende disclosed the patient support of claim 12, wherein the limb support comprises a plurality of lateral support members (*e. g.*, **2, 6, 18**) disposed at different vertical positions.

With regard to claim 39, Van der Ende disclosed a method of forming a laterally adjustable limb support for a medical imaging system, comprising the steps of: providing a lateral rail structure (**4**) attachable to a receptor (**12**) of the medical imaging system, wherein the lateral rail structure has a curvilinear path; and slidingly coupling (**14, 16, 18**) a limb support (**8**) to the lateral rail structure.

With regard to claim 41, Van der Ende disclosed the method of claim 39, wherein the curvilinear path is convex.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Ende (U. S. Patent No. 5,822,814) as applied to claim 12 above, and further in view of Conrad *et al.* (U. S. Patent No. 3,997,792).

With regard to claim 18, Van der Ende disclosed the patient support of claim 12. However, Van der Ende failed to teach that the limb support comprises a handgrip.

Conrad *et al.* disclosed a limb support comprising a handgrip (24). Conrad *et al.* taught that a safety device such as a handgrip is generally required to prevent the patient from falling from the limb support while being x-ray imaged (column 1, lines 17-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a handgrip to the limb support, since a person would be motivated to prevent the patient from falling from the limb support while being imaged.

5. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Ende (U. S. Patent No. 5,822,814) in view of Conrad *et al.* (U. S. Patent No. 3,997,792).

With regard to claim 50, Van der Ende disclosed a patient support system for a medical imaging system, comprising: a lateral rail structure (4) attachable to a receptor (12) of the medical imaging system; and a patient support (8) movably coupled to the lateral rail structure via a rail guide structure (14, 16).

However, Van der Ende failed to teach that the patient support comprises a plurality of handgrips.

Conrad *et al.* disclosed a patient support comprising a plurality of handgrips (24). Conrad *et al.* taught that a safety device such as a handgrip is generally required to prevent the patient from falling from the patient support while being x-ray imaged (column 1, lines 17-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a plurality of handgrips to the patient support, since a person

Art Unit: 2882

would be motivated to prevent the patient from falling from the patient support while being imaged.

With regard to claim 51, Van der Ende in combination with Conrad *et al.* disclosed the patient support system of claim 50, wherein the plurality of handgrips are disposed at different vertical positions (lowered and raised positions).

6. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (U. S. Patent No. 6,450,684 B2) in view of Conrad *et al.* (U. S. Patent No. 3,997,792).

With regard to claim 50, Kobayashi disclosed a patient support system for a medical imaging system, comprising: a lateral rail structure (24) attachable to a receptor (14) of the medical imaging system; and the patient support (12) movably coupled to the lateral rail structure via a rail guide structure (15).

However, Kobayashi failed to teach that the patient support comprises a plurality of handgrips.

Conrad *et al.* disclosed a patient support comprising a plurality of handgrips (24). Conrad *et al.* taught that a safety device such as a handgrip is generally required to prevent the patient from falling from the patient support while being x-ray imaged (column 1, lines 17-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a plurality of handgrips to the patient support, since a person would be motivated to prevent the patient from falling from the patient support while being imaged.

Allowable Subject Matter

7. Claims 1-3, 5-11, 21-24, 26, and 28-38 are allowed.
8. Claims 14-16 and 42-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 1-3 and 5-11, although the prior art discloses patient support systems comprising a lateral rail structure attachable to a receptor and a patient support movably coupled to the lateral rail structure via a rail guide, it fails to teach or fairly suggest that the rail guide structure is releasably coupled to the lateral rail structure via a releasable latch as claimed in claim 1.

With regard to claims 21-24, 26, and 28-31, although the prior art discloses medical imaging systems comprising a rail structure having a curvilinear path coupled to a radiographic receptor and a patient extremity support, it fails to teach or fairly suggest that the patient extremity support tiltingly slides along the rail structure with the curvilinear path as claimed in claim 21.

With regard to claims 32-38, although the prior art discloses a method of supporting a patient limb during image acquisition by a medical imaging system comprising the steps of sliding a limb support along a rail structure coupled to, and movable with, a radiographic receptor of the medical imaging system, and securing the limb support in a desired position along the rail structure, it fails to teach or fairly suggest that the rail structure is directly coupled to, and movable with, the radiographic receptor of the medical imaging system as claimed in claim 32.

Response to Arguments

10. Applicant's arguments filed 28 January 2005 with respect to claims 32 and 35-38 have been fully considered and are persuasive. The rejection of claims 32 and 35-38 has been withdrawn.

11. Applicant's arguments filed 28 January 2005 have been fully considered but they are not persuasive.

With regard to claims 12 and 39, applicants argue that Van der Ende failed to disclose all the elements of independent claims 12 and 39. The examiner respectfully disagrees with this assertion. As clearly shown in Fig. 1, the C-arm (4) comprises rail tracks on its sides so as to rotatably engage a trackway (20), thus making the C-arm a curvilinear rail structure. Furthermore, as shown in Fig. 1, the limb support (8) is slidingly (18) coupled the curvilinear rail structure because everything in this diagnostic apparatus is coupled to each other. As defined by Merriam-Webster's Collegiate Dictionary, the word "coupled" means to join for combined effect. And that is exactly what is disclosed by Van der Ende; individual components are joined to form a diagnostic apparatus.

With regard to claim 50, applicants argue that Van der Ende failed to disclose all the elements. The examiner respectfully disagrees with this assertion. As discussed above, Van der Ende disclosed a patient support (8) movably coupled to the lateral rail structure via a rail guide structure (18). Furthermore, applicants contend that Kobayashi failed to disclose a patient support movably coupled to the lateral rail structure because the patient support is fixedly secured to a support bench (11). However, the examiner would like to point out that is not what

Art Unit: 2882

is claimed in claim 50. Claim 50 does not claim a movable patient support; it claims that the patient support and the lateral rail structure are movably coupled. Kobayashi disclosed a lateral rail structure (24) that is movably coupled to a patient support (12), which reads on the claim.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Primary Examiner
Art Unit 2882

25 March 2005